

Claims

1. A method of fabricating a printed circuit board assembly, comprising:

molding an array including a plurality of circuits that are physically interconnected, each integrated circuit having a molded body defining a lower surface, each integrated circuit having a plurality of electrical contacts on the bottom surface;

singulating the array to form a plurality of separate integrated circuits and cut at least a portion of the electrical contacts;

applying an organic solderability preservative to the cut portions of the electrical contacts;

applying heat to dry the integrated circuits;

soldering the integrated circuits to a printed circuit board by applying molten solder to remove the organic solderability preservative.

2. The method of claim 1, wherein:

the array is singulated utilizing a sawing process; and

the organic solderability preservative is applied during the sawing process.

3. The method of claim 1, wherein:

the organic solderability preservative is applied by dipping after singulation.

4. The method of claim 1, wherein:

the organic solderability preservative is applied by spraying after singulation.

5. The method of claim 1, wherein:

the array is singulated by shearing the array utilizing a punch and die.

6. The method of claim 1, including:  
cleaning the electrical contacts with an etching material prior to  
application of the organic solderability preservative.

7. The method of claim 1, wherein:  
the integrated circuit includes an exposed die paddle on the  
lower surface.

8. A method of fabricating an integrated circuit package,  
comprising:

molding an array including a plurality of circuits that are  
physically interconnected, each integrated circuit having a molded body  
defining a lower surface, each integrated circuit having a plurality of electrical  
contacts on the bottom surface;

singulating the array into a plurality of separate integrated  
circuits by sawing the array;

applying an organic solderability preservative to at least a  
portion of the electrical contacts;

applying heat to dry the organic solderability preservative.

9. The method of claim 8, wherein:  
the organic solderability preservative is applied by dipping after  
singulation.

10. The method of claim 8, wherein:  
the organic solderability preservative is applied by spraying  
after singulation.

11. The method of claim 8, including:  
cleaning the electrical contacts with an etching material prior to  
application of the organic solderability preservative.

12. The method of claim 8, wherein:  
the organic solderability preservative comprises an imidazole compound.

13. A method of fabricating an integrated circuit package, comprising:

fabricating an array including a plurality of circuits that are physically interconnected, each integrated circuit having a body defining a lower surface, each integrated circuit having a plurality of electrical contacts on the bottom surface;

singulating the array into a plurality of separate integrated circuits by cutting the array;

applying an oxidation inhibiting agent to at least a portion of the electrical contacts.

14. The method of claim 13, wherein:  
the oxidation inhibiting agent is applied in a liquid form; and including:

applying heat to dry the organic solderability preservative.

15. The method of claim 14, wherein:  
the oxidation inhibiting agent is an organic solderability preservative.

16. The method of claim 15, wherein:  
the organic solderability preservative is applied by dipping after singulation.

17. The method of claim 15, wherein:  
the organic solderability preservative is applied by spraying after singulation.

18. The method of claim 15, including:  
cleaning the electrical contacts with an etching material prior to  
application of the organic solderability preservative.
  
19. The method of claim 15, wherein:  
the organic solderability preservative comprises an imidazole  
compound.